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30 pp.

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H. Grise, 20 pp.

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GERMAN, per, Justus Liebigs Ann Chem, Vol DLXXXIX,
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Low-Pressure Process for Production of High-
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SIA TT-64-30828

Karl Ziegler

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SIA TT-65-10014

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K. Ziegler

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Assoc Tech Sv
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pounds. [1963] 19p
Order from K-H \$19.00

K-H 3456 d

Trans. of [Justus Liebig's] Annalen der Chemie
(Germany) 1930, v. 479, p. 135-149.

DESCRIPTORS: *Metalorganic compounds, *Alkali
metal compounds, *Lithium compounds, Alkyl radicals,
Synthesis (Chemistry), Ziegler catalysts.

(See also K-H 3456 c)

(Chemistry--Organic, TT, v. 10, no. 10)

63-22492

- I. Ziegler, K.
- II. Colonius, H.
- III. K-H-3456-d
- IV. Title: Research...
- V. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

125236

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Macromolecular Synthesis, by K. Ziegler, 14 pp.

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Order from K-H \$25.00 K-H-3456-e

Trans. of [Justus Liebig's] Annalen der Chemie
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DESCRIPTORS: *Organic compounds, *Hydrocarbons,
Polymerization, *Catalysis, *Alkali metal compounds

(Chemistry--Organic, TT, v. 10, no. 12)

63-22831 .

- I. Ziegler, K.
- II. Jakob, L.
- III. K-H-3456-e
- IV. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

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Office of Technical Services

Ziegler, K[arl] Crossmann, F., Kleinger, H., and
Schafer, O.

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BONS AND ALKALI METAL ALKYLs. Pt. 1 of [Re-
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Order from K-H \$48.00

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DESCRIPTORS: *Alkyl radicals, *Alkali metal com-
pounds, *Hydrocarbons, Chemical reactions

(Chemistry--Organic, TT, v. 10, no. 12)

63-22839

- I. Ziegler, K.
- II. Crossmann, F.
- III. Kleinger, H.
- IV. Schafer, O.
- V. Title: Research...
- VI. K-H-3559-a
- VII. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

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JPRS 15857

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Order from K-H \$50.00

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Trans. of [Justus Liebig's] Annalen der Chemie
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DESCRIPTORS: *Alkyl radicals, *Alkali metal com-
pounds, *Hydrocarbons, Polymerization

(Chemistry--Organic, TT, v. 10, no. 12)

63-22840

- I. Ziegler, K.
- II. Dersch, F.
- III. Wollthan, H.
- IV. Title: Research...
- V. K-H-3456-f
- VI. Kresge-Hooker Science
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SLA TT-65-10332

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2. Petroleum industry
3. Chemical engineering
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Office of Technical Services

(Engineering--Chemical, TT, v. 5, no. 11)

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15 p.

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Method for Polymerization of Ethylene,
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Class 39C, ~~Exp~~ Group 25/01, publ 13 Jul 1953.

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Method for the Polymerization and Copolymerization
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SLA TT-65-10305

Karl Ziegler

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GERMAN, Patent Appln No 4628 IVc/39c, 22 Dec 1954,
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Scientific - Chemistry

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Scientific - Chemistry

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Scientific - Chemistry

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RLS 0.4 96254

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Societa Generale per l'Industria Mineraria e
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450, 10 Jan 1957).

RIS rept. 96969

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OTS, Vol III, No 12

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BELGIAN, Patent, 588,723.

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SLN-57-1497

SLA-57-15175

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Process for the Production of Higher Molecular
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SLA 59-17236

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Process for the Preparation of Organic Compounds
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12 pp.

GERMAN, ~~xx~~ Patent Appln No Z-1955, 12 c, 26/03,
31 Dec 1953.

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Scientific - Chemistry Jul 55 CTS

Process for the Preparation of Sodium Cyclopentadiene
~~Sodium~~ Sodium Alkylcyclopentadiene and Sodium
Benzylcyclopentadiene, by Karl Ziegler,
Klaus Hafner, 2 pp.

GERMAN, Patent Appl No Z 2857, 12 o, 25,
28 Oct 1954, M~~g~~elheim/Ruhr.
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CIA/FDD/XX-22

IAC Internal Use Only

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DAS 1,034,169, filed 7 Jan 1954, Pub 17 Jul 1958.

RIS rept 96948

Sci - Chem
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REACTION OF THE ALUMINUM-HYDROGEN COM-
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Compounds. [1963] 56p (figs omitted)
Order from K-H \$56.00 K-H-3215

Trans. of [Justus] Liebigs Annalen der Chemie (West
Germany) 1954, v. 589, no. 2, p. 91-121.

DESCRIPTORS: Metaorganic compounds, *Aluminum
compounds, *Hydrogen, *Ethylenes, Chemical reactions

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Martin, H.
- IV. Nagel, K.
- V. Schmalder, J.
- VI. Title: Metalloorganic...
- VII. K-H-3215
- VIII. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

63-22845

(Chemistry--Organic, TT, v. 10, no. 12)

Office of Technical Services

Ziegler, Karl, Martin, Heinz, and Krupp, Felix.
ALUMINUM TRIALKYLS AND DIALKYL ALUMINUM
HYDRIDES FROM ISOBUTYL ALUMINUM COM-
POUNDS. Pt. 27 of Metalloorganic Compounds. [1961]
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Trans. of [Justus] Liebigs Annalen [der] Chemie (West
Germany) 1960, v. 629 [no. 1/3] p. 14-19.

Another trans. is available from SLA \$1.10 as
61-20450 [1961] 8p

DESCRIPTORS: Metalorganic compounds, *Aluminum
compounds, *Hydrides, *Alkyl radicals, *Butyl radi-
cals, Synthesis (Chemistry), Chemical reactions.

(Chemistry--Organic, TT, v. 10, no. 12)

63-22847

I. Title: Alkylaluminum
hydride

I. Ziegler, K.

II. Martin, H.

III. Krupp, F.

IV. Title: Metalloorganic...

V. K-H-10024-12

VI. Kresge-Hooker Science
Library Associates,
Detroit, Mich. 48201

A256332

Office of Technical Services

Trialkyl- and Dialkylaluminum Hydrides
from Chlorine, Hydrogen and Aluminum,
by Karl Ziegler, Hans-Georg Ollert,
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Chemie, per, Justus Liebig Annalen
der Chemie, Vol 649, No 1/3, 1960,
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SLA TT-64-30986

Karl Ziegler

336, 162

Sci
Aug 67

Process for the Preparation of Higher
Boron Alkyls from Lower Boron Alkyls,
by Karl Ziegler, Roland Koster, Wolf-
Reiner Kroll, Sp.
GERMAN, patent, 1,055,534, 1962.
SLA TT-65-10379

Karl Ziegler
306, 163

Sci
Aug 67

Ziegler, K[arl] and Kleiner, M.
POLYMERIZATION OF UNSATURATED HYDRO-
CARBONS UNDER THE INFLUENCE OF ALKALI
METALS AND ALKALI METAL ALKYLs. Pt. 3 of
[Research on Alkali Organic Compounds]. [1963] 37p
(figs omitted)

Order from K-H \$37.00

K-H 3559 b

Trans. of [Justus Liebig's] Annalen der Chemie
(Germany) 1929, v. 473, p. 57-82.

DESCRIPTORS: *Alkyl radicals, *Alkali metals, *Hy-
drocarbons, Polymerization

(Chemistry--Organic, TT, v. 11, no. 1)

TT-63-22832

- I. Ziegler, K.
- II. Kleiner, M.
- III. K-H-3559-b
- IV. Kresge-Hooker Science
Library Associates,
Kerrolt, Mich.

1963-1964

1963-1964

Office of Technical Services

Ziegler, K[arl] Grimm, H., and Willer, R.
CONTROLLED, 1,4-POLYMERIZATION OF BUTADIENE.
Pt. 15 of [Research] on Alkali Organic Compounds.
[1963] 48p (figs omitted)
Order from K-H \$48.00

K-H 3456 m

Trans. of [Justus Liebigs] Annalen der Chemie
(Germany) 1940, v. 542, p. 90-122.

DESCRIPTORS: *Butadienes, Polymerization, Organic
compounds

(Chemistry--Organic, TT, v. 11, no. 1)

TT-63-22830

- I. Ziegler, K.
- II. Grimm, H.
- III. Willer, R.
- IV. K-H-3456-m
- V. Title: Research ...
- VI. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1106499

Office of Technical Service

The Path of the Metal Alkyls from the Laboratory to
Petrochemical Technology, by Karl Ziegler, 24 pp.

GERMAN, monograph.

SLA 59-15055

Sci

Dec 59

Vol 2, No 5

104, 268

Ziegler, K[arl] and Gellert, H. G.
ADDITION OF LITHIUM ALKYL TO ETHYLENE.
[1963] 18p (figs omitted) 18refs
Order from SLA \$1.60

63-18956

Trans. of [Justus Liebigs] Ann[alen der Chemie]
(West Germany) 1950, v. 567, p. 195-203.

DESCRIPTORS: *Ethylenes, *Alkyl radicals, *Lithium
compounds, Additives, Pyrolysis, Chemical reactions.

(Chemistry--Organic, TT, v. 10, no. 12)

63-18956

I. Ziegler, K.
II. Gellert, H. G.

~~63-18956~~

6085

Office of Technical Services

Ziegler, K[arl] and Gellert, H. G.
REACTIONS BETWEEN LITHIUM ALKYLs AND
ETHERS. [1963] 11p (figs omitted) Srefs
Order from SLA \$1.60 63-18952

Partial trans. (p. 185-190) of [Justus] Liebig's
Ann[alen der Chemie] (West Germany) 1950, v. 567,
p. 185-195.

DESCRIPTORS: *Ethers, *Alkyl radicals, *Lithium
compounds, Decomposition, Chemical reactions.

(Chemistry--Organic, TT, v. 10, no. 12)

63-18952

I. Ziegler, K.
II. Gellert, H. G.

~~63-18952~~
63-18952

Office of Technical Services

Ziegler, K.
THE IMPORTANCE OF ALKALI METALLO-ORGANIC
COMPOUNDS FOR SYNTHESIS. [1964] 17p 4refs
Order from SLA \$1.60
TT-64-14901

Trans. of Angew[andte] Chem[ie] (Germany) 1936, v. 49,
no. 30, p. 499-502.
Another trans. is available from K-H \$17.00 as
K-H-3456-k [1963] 17p.

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-14901

I. Ziegler, K.

299090

Office of Technical Services

Ziegler, K., Grimm, H., and Willer, R.
[ALKALI ORGANIC COMPOUNDS]. XV. CONTROLLER
1,4-POLYMERIZATION OF BUTADIENE. [1964] 48p
(figs omitted) 10refs
Order from SLA \$4.60

TT-64-14906

Trans. of [Justus Liebig's Annalen der Chemie]
(Germany) 1939, v. 542, p. 90-122.

See also TT-64-14896.

TT-64-14906

I. Ziegler, K.
II. Grimm, H.
III. Willer, R.
IV. Title: Controller...

1260571

(Chemistry--Organic, TT, v. 11, no. 11)

Office of Technical Services

Ziegler, K., Crossmann, F., Kleiner, H.,
and Schäfer, O.
ALKALI ORGANIC COMPOUNDS. I. REACTIONS BE-
TWEEN UNSATURATED HYDROCARBONS AND
ALKALI METAL ALKYLs. [1964] 48p (figs omitted)
35refs
Order from SLA \$4.60 TT-64-14926

Trans. of [Justus Liebig's] Annalen der Chemie
(Germany) 1929, v. 473, p. 1-35.

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-14926

I. Ziegler, K.
II. Crossmann, F.
III. Kleiner, H.
IV. Schäfer, O.
V. Title: Reactions...

1380569

Office of Technical Services

Ziegler, K. and Kleiner, H.
POLYMERIZATION OF UNSATURATED HYDRO-
CARBONS UNDER THE INFLUENCE OF ALKALI
METALS AND ALKALI METAL ALKYL, III [1964]
37p (figs omitted) 7 refs
Order from SLA \$3.60

TT-64-14928

Trans. of [Justus Liebig's] Annalen [der Chemie]
(West Germany) 1929, v. 473, p. 57-82.

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-14928

I. Ziegler, K.
II. Kleiner, H.

4280570

Office of Technical Services

Ziegler, Karl and Hoberg, H.
REACTION INHIBITION OF ALUMINUM TRIALKYLS
BY ASSOCIATION. [1963] 22p
Order from K-H \$22.00 K-H 11313

Trans. of Chemische Berichte (West Germany) 1960,
v. 93 [no. 12] p. 2938-2950.

DESCRIPTORS: *Ziegler catalysts, *Metalorganic
compounds, *Aluminum compounds, Alkyl radicals,
Chemical reactions.

(Chemistry--Physical, TT, v. 10, no. 10)

63-22506

I. Ziegler, K.
II. Hoberg, H.
III. K-H-11313
IV. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1252520

Office of Technical Services

Ziegler, Karl, Lehmkuhl, Herbert, and
Lindner, Eberhard.
ELECTROLYSIS OF SEVERAL COMPLEX ORGANO-
ALUMINUM COMPOUNDS ON INDIFFERENT
ANODES. [1963] 21p
Order from K-H \$21.00 K-H 9575

Trans. of Chemische Berichte (West Germany) 1959,
v. 92, p. 2320-2332.

DESCRIPTORS: *Ziegler catalysts, *Metalorganic
compounds, Complex compounds, *Aluminum com-
pounds, Alkyl radicals, Electrolysis, *Electro-
chemistry, Anodes (Electrolytic cell).

(Chemistry--Physical, TT, v. 10, no. 10)

63-22507

- I. Ziegler, K.
- II. Lehmkuhl, H.
- III. Lindner, E.
- IV. K-H-9575
- V. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1252531

Office of Technical Services

Ziegler, Karl and Wenz, Adolf.
STEREOCHEMICAL STUDIES. III. THE PROBLEM OF
OPTICALLY ACTIVE ALKALI ORGANIC COMPOUNDS.
[1963] 8p
Order from K-II \$8.00 K-II 3456 I

Trans. of Chemische Berichte (West Germany) 1950,
v. 83, p. 354-358.

DESCRIPTORS: *Stereochemistry, *Alkali metal
compounds, *Metalorganic compounds, Ziegler
catalysts.

(Chemistry--Organic, TT, v. 10, no. 10)

63-22505

I. Ziegler, K.
II. Wenz, A.
III. Title: Problem . . .
IV. K-II-3456-i
V. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1252366

Office of Technical Services

Ziegler, K[arl].
THE IMPORTANCE OF ALKALI METALLO-
ORGANIC COMPOUNDS FOR SYNTHESIS. [1963] 20p
Order from K-H \$20.00 K-H 3456-1

Trans. of Angewandte Chemie (Germany) [1936] v. 49,
p. 455-460.

DESCRIPTORS: *Metalorganic compounds, Synthesis
(Chemistry), *Alkali metal compounds.

(Chemistry--Organic, TT, v. 10, no. 10)

63-22503

- I. Ziegler, K.
- II. K-H-3456-1
- III. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

1352413

Office of Technical Services

Ziegler, Karl.
METHOD FOR OBTAINING ORGANIC COMPOUNDS OF
ALUMINUM AND BERYLLIUM. [1963] 24p.
Order from OTS or SLA \$2.60 63-16813

Trans. of Belgian patent 512, 267, appl. 20 June 52,
issued 15 July 52.

DESCRIPTORS: *Organic compounds, *Aluminum com-
pounds, *Beryllium compounds, *Hydrocarbons,
*Ethylenes, Chemical reactions.

The invention concerns new methods for obtaining
organic compounds of aluminum and beryllium. It rests
on the observation that the compounds of the general
formula $Me(R)_n$, in which Me represents one of the two
indicated metals, R represents hydrogen or a saturated
monovalent radical, aliphatic or aromatic, in any
combination whatever, and n has the value of the valence
of the metal Me, can combine with olefins. The com-
(Chemistry--Organic, TT, v. 10, no. 9) (over)

63-16813

I. Ziegler, K.
II. Patent (Belgium) 512 267

104857
Office of Technical Services

Ziegler, Karl and Koster, Roland.
PROCESS FOR THE PREPARATION OF ORGANO-
ALUMINUM COMPOUNDS ESPECIALLY THE TRI-
ALKYLS TOGETHER WITH CRYOLITE. [1963] 11p.
Order from OTS or SLA \$1.60 63-16814

Trans. of German patent application Z2838, 22 July 52.

DESCRIPTORS: *Aluminum compounds, Organic com-
pounds, *Cryolite, Alkyl radicals.

The invention concerns a process for the preparation of
organo-aluminum compounds, especially aluminum tri-
alkyls, together with cryolite, characterized in that
alkyl or aryl aluminum halides, especially alkyl alumi-
num sesquihalides are reacted with alkali fluorides at
elevated temperature, advantageously in exact stoichio-
metric proportions, and under nitrogen. (Author)

(Chemistry--Organic, TT, v. 10, no. 9)

63-16814

I. Ziegler, K.
II. Koster, R.
III. Patent application
(Germany) Z 2 838

AL49617

Office of Technical Services

SLA TT-65-11868

Ziegler, Karl, Gellert, Hans-Georg, and Nagel,
Konrad.
PROCESS FOR THE PREPARATION OF ALKYL-
ALUMINUM HYDRIDES. [1963] 10p.
Order from OTS or SLA \$1.10 63-16817

Trans. of German patent 918,928, pub. 7 Oct 54.

DESCRIPTORS: *Aluminum compounds, *Alkyl radi-
cals, *Hydrides, Halides, Metalorganic compounds,
*Ziegler catalysts.

The invention includes a process for the preparation of
alkyl aluminum hydrides of the general formula $AlHXY$,
wherein X is alkyl, R and Y are alkyl or hydrogen, and
their complex compounds with alkali hydrides, char-
acterized by the fact that one reacts alkyl aluminum
dihalides of dialkyl aluminum monohalides with alkali
hydrides. (Author)
(Chemistry--Organic, TT, γ . 10, no. 9)

63-16817

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Nagel, K.
- IV. Patent (Germany) 918 928

Office of Technical Services

Ziegler, Karl.

PROCESS FOR THE POLYMERIZATION OF OLEFINS
AND SOLID OLEFIN POLYMERS. [1963] 2850 words.
Order from CTS(Chem) \$11.40 CTS(Chem)-330
subsequent copies \$1.90/ea.

Trans. of Italian patent 537,164, filed 30 June 55,
granted 19 Dec 55, by Montecatini Società Generale per
l'Industria Mineraria e Chimica.

DESCRIPTORS: *Polyethylene plastics, Synthesis,
Ethylenes, Propenes, Butenes, Polymerization, Metal-
organic compounds, Complex compounds, *Ziegler
catalysts.

(Materials--Plastics, TT, v. 10, no. 2)

63-17431

- I. Ziegler, K.
- II. Patent (Italy) 537 164
- III. CTS(Chem)-330
- IV. Chemical Translating
Service, Palo Alto, Calif.

11-19751

Office of Technical Services

Ziegler, Karl, Froitzheim-Kuhlhorn, Helga, and
Hafner, Klaus.

METAL COMPOUNDS OF CYCLOPENTADIENE.
Pt. 21 of Metallo-Organic Compounds. [1961] 12p.
18 refs.

Order from SLA \$1.60

61-20291

Trans. of Chem[ische] Ber[ichte] (West Germany)
1956, v. 89, p. 434ff.

DESCRIPTORS: *Metalorganic compounds, Organic
compounds, *Cyclopentadiene, Pentadienes, Sodium
compounds, Calcium compounds, Carboxylic acids,
Acids, Synthesis.

Various methods for the preparation of cyclopenta-
dienylsodium are described. With sodium metal,
cyclopentadiene reacts as an acid with evolution of
hydrogen. With sodium in liquid ammonia, no hydro-
gen is given off; however, 1/3 of the cyclopentadiene
(Chemistry--Organic, TT, v. 7, no. 1) (over)

61-20291

- I. Ziegler, K.
- II. Froitzheim-Kuhlhorn, H
- III. Hafner, K.
- IV. Title: Metallo-Organic...

184252

Office of Technical Services

Ziegler, Karl.
 PROCESS FOR POLYMERIZATION ETHYLENE
 [Procédé pour la Polymérisation de l'Éthylène]. Jan 64
 [26p]
 Order from RIS \$36.00 RIS-96372
 Polyolefins Set \$750.00

Trans. of Belgian patent 527 736, Mar 54. (Abstract
 available)

DESCRIPTORS: *Polyethylene plastics, *Butenes,
 *Ethylenes, Polymerization, Metalorganic compounds,
 *Ziegler catalysts, *Aluminum compounds, Alkyl
 radicals, *Nickel catalysts, *Cobalt catalysts,
 *Platinum catalysts,

Finely divided nickel, cobalt or platinum activators are
 used in varying proportions or varying degrees of
 activity to control in large measure as desired, the poly-
 merization of ethylene in the presence of trialkyl-
 (Materials--Plastics, TT, v. 11, no. 11) (over)

TT-64-12517

I. Ziegler, K.
 II. Patent (Belgium) 527 736
 III. RIS-96372
 IV. Research Information
 Service, New York

280815

Office of Technical Services

Ziegler, Karl.

LOW-PRESSURE PROCESS FOR PRODUCTION OF
HIGH-MOLECULAR WEIGHT POLYETHYLENES AND
CATALYSTS FOR THIS PROCESS [Procédé de Prépara-
tion de Polyéthylènes à Poids Moléculaires Elevés
Utilisables comme Produits Artificiels, et Catalyseurs
pour sa Réalisation]. Jan 64 [21p]
Order from RIS \$29.00
Polyolefine Set \$750.00

RIS-96370

Trans. of Belgian patent 534 792, Jan 55. (Abstract
available)

DESCRIPTORS: *Polyethylene plastics, *Fibers
(Synthetic), Alkenes, Polymerization, Metalorganic
compounds, *Ziegler catalysts, *Aluminum compounds,
Alkyl radicals,

Polyethylenes ranging in molecular weight from 2000 to
50,000 or even 3,000,000, which can be processed into
(Materials--Plastics, TT, v. 11, no. 11) (over)

TT-64-12486

- I. Ziegler, K.
- II. Patent (Belgium) 534 792
- III. RIS-96370
- IV. Research Information
Service, New York

1280816

Office of Technical Services

Ziegler, Karl.
PROCESS FOR PRODUCTION OF TRIALKYLALUMI-
NUMS AND ALKYLALUMINUM HYDRIDES [Procédé
pour la Préparation d'Aluminium Trisalcyles et
Dehydrures d'Aluminium Alcoyles]. Jan 64 [31p]
Order from RIS \$34.00 RIS-96373
Metal Organics Set \$200.00

Trans. of Belgian patent 535 235, Jan 55. (Abstract
available)

DESCRIPTORS: *Metalorganic compounds, *Ziegler
catalysts, *Aluminum compounds, Alkyl radicals,
*Hydrides, Synthesis (Chemistry).

Trialkylaluminums and alkylaluminum hydrides are pro-
duced directly by reacting activated aluminum with
olefins and hydrogen under pressure. The aluminum is
activated by mechanical division and measures prevent-
ing formation of an inactive oxide surface layer. (RIS
abstract)

TT-64-12673

I. Ziegler, K.
II. Patent (Belgium) 535 235
III. RIS-96373
IV. Research Information
Service, New York

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(Chemistry--Organic,
TT, v. 11, no. 11)
Office of Technical Services

New Reactions of Unsaturated Hydrocarbons,
by Karl Ziegler, 5 pp.

GERMAN, per, Gluckauf, Vol LXXXVIII,
No 15/16, 1952, pp 380-382.

SLA 60-16798

Sci
Vol IV, No 7
Apr 62

192, 656

TT-64 12488

Ziegler, Karl
LOW-PRESSURE PROCESS FOR POLYMERIZATION
OF PROPYLENE AND APPLICATIONS OF THE "END-
TO-END" POLYMERS SO OBTAINED. Jan 64.
Order from RIS \$85.00 RIS-96480
Polyolefins Set \$750.00

Trans. of Belgian patent 538 782, by Montecatini,
Jun 55. (Abstract available)

DESCRIPTORS: *Polyethylene plastics, *Fibers
(Synthetic), *Propenes, Polymerization, Metalorganic
compounds, *Ziegler catalysts,

Linear, predominantly unbranched polymers charac-
terized by end-to-end chain linkage (called chains) and
average weights above 10,000 are obtained by poly-
merizing α -olefins or mixtures thereof with catalysts
prepared by reacting compounds of metals of groups
(Materials--Plastics, TT, v. 11, no. 11) (over)

- I. Ziegler, K.
- II. Patent (Belgium) 538 782
- III. RIS-96480
- IV. Research information
Service, New York

1280818

Office of Technical Services

Ziegler, Karl.
PROCESS FOR PRODUCTION OF HIGH-MOLECULAR
WEIGHT POLYETHYLENES USABLE AS PLASTICS,
PRODUCTS OBTAINED BY THIS PROCESS AND
CATALYSTS FOR USE IN THIS PROCESS. Jan 64.
Order from RIS \$42.50 RIS-96367
Polyolefins Set \$750.00

Trans. of Belgian patent 542 658, Nov 55. (Abstract
available)

DESCRIPTORS: *Polyethylene plastics, Ethylenes,
Polymerization, Metalorganic compounds, *Ziegler
catalysts, *Aluminum compounds, Alkyl radicals,

Polyethylenes with a degree of crystallinity equal to or
least 80% are obtained by a process using a new
catalyst system that combines previously known
aluminum-organic compounds with iron compounds such
as iron chlorides. (RIS abstract)
(Materials--Plastics, TT, v. 11, no. 11)

TT-64-12493

I. Ziegler, K.
II. Patent (Belgium) 542 658
III. RIS-96367
IV. Research Information
Service, New York

1260819

Office of Technical Services

Ziegler, Karl.
PROCESS FOR SELECTIVE POLYMERIZATION OF
 α -OLEFINS INTO CRYSTALLINE OR AMORPHOUS
POLYMERS. Jan 64.
Order from RIS \$80.00 RIS-96588
Polyolefins Set \$750.00

Trans. of Belgian patent 543 259, by Montecatini,
Nov 55. (Abstract available)

DESCRIPTORS: *Polyethylene plastics, *Alkynes,
Polymerization, Metalorganic compounds, *Ziegler
catalysts, *Alumina compounds, Alkyl radicals,

The polymerization of α -olefins with the aid of catalysts
prepared by reaction of compounds of IVB-VIB metals
with aluminum-organic compounds can be directed to-
ward the exclusive or preponderant formation of either
isotactic or non-isotactic polymers by the appropriate
variation of chemical or physical characteristics of the
catalysts system. (RIS abstract)

TT-64-12494

I. Ziegler, K.
II. Patent (Belgium) 543 259
III. RIS-96588
IV. Research Information
Service, New York

1960820

(Materials--Plastics,
TT, v. 11, no. 11)
Office of Technical Services

Ziegler, Karl.

PROCESS FOR PRODUCTION OF HIGH-MOLECULAR
WEIGHT POLYETHYLENE AND NEW POLYMERIZA-
TION CATALYSTS [Procédé pour la Préparation de
Polyéthylène de Poids Moléculaires Elevés Utilisables
comme Produits Synthétiques et Catalyseurs pour la
Mise en Oeuvre de ce Procédé]. Jan 64 [12p]
Order from RIS \$20.00 RIS-96371
Polyolefins Set \$750.00

Trans. of Belgian patent 543 888, Jan 55. (Abstract
available)

DESCRIPTORS: *Polyethylene plastics, *Ethylenes,
Polymerization, Metalorganic compounds, *Ziegler
catalysts, *Magnesium compounds, *Zinc compounds,
Alkyl radicals,

Gaseous ethylene is polymerized rapidly at low pres-
sures into plastics products with molecular weights
(Materials--Plastics, TT, v. 11, no. 11) (over)

TT-64-12487

- I. Ziegler, K.
- II. Patent (Belgium) 543 888
- III. RIS-96371
- IV. Research Information
Service, New York

1260821

Office of Technical Services

Ziegler, Karl. PROCESS FOR PRODUCTION OF HIGH-MOLECULAR WEIGHT POLYETHYLENES USABLE AS PLASTICS AND CATALYSTS FOR THIS PROCESS. Jan 64. Order from RIS \$22.00 RIS-96866 Polyolefins Set \$750.00	TT-64-12524 I. Ziegler, K. II. Patent (Belgium) 543 913 III. Patent (Belgium) 534 888, suppl. IV. RIS-96866 V. Research Information Service, New York
Trans. of Belgian patent 543 913, Jan 55, supplement to pat. 534 888, Dec 55. (Abstract available)	4280822
DESCRIPTORS: *Polyethylene plastics, *Ethylenes, Polymerization, Metalorganic compounds, *Ziegler catalysts, *Aluminum compounds, *Magnesium com- pounds, *Zinc compounds, Alkyl radicals, *Uranium compounds, *Thorium compounds, Complex compounds.	Office of Technical Services
Ethylene is polymerized into linear, crystalline poly- ethylene of high-molecular weight and true plastics character with combination catalysts which contain, in lieu of or in addition to organic compounds of aluminum, (Materials--Plastics, TT, v. 11, no. 11) (over)	

Ziegler, Karl.
NEW CATALYSTS FOR POLYMERIZATION OF
PROPYLENE. Jan 64.
Order from RIS \$21.00 RIS-96593
Polyolefins Set \$750.00

Trans. of Belgian patent 544 576, by Montecatini
S.G.p.I., Dec 55. (Abstract available)

DESCRIPTORS: *Polyethylene plastics, *Propene,
Polymerization, Metalorganic compounds, *Ziegler
catalysts, *Aluminum compounds, Alkyl radicals,
*Iron compounds,

The polymerization process is carried out with
catalysts obtained by reaction of iron compounds with
aluminum-organic compounds. (RIS abstract)

(Materials--Plastics, TT, v. 11, no. 11)

TT-64-12496

I. Ziegler, K.
II. Patent (Belgium) 544 576
III. RIS-96593
IV. Research Information
Service, New York

1581823

Office of Technical Services

Ziegler, Karl.
PROCESS AND APPARATUS FOR THE PRODUCTION
OF DIALKYLALUMINUM HYDRIDES AND TRIALKYL-
ALUMINUMS [Procédé et Dispositif pour la Fabrication
d'Hydrures d'Aluminium Dialcoyles et d'Aluminium
Trialkoyles]. Jan 64 [25p]
Order from RIS \$45.00 RIS-96644
Metal Organics Set \$200.00

Trans. of Belgian patent 546 432, Mar 56. (Abstract
available)

DESCRIPTORS: *Metalorganic compounds, *Ziegler
catalysts, *Aluminum compounds, Alkyl radicals,
Propyl radicals, Ethyl radicals, Hydrides, Synthesis
(Chemistry),

Aluminum is heated with a trialkylaluminum and hydro-
gen under a pressure above 20 atm, and the resulting
(Chemistry--Organic, TT, v. 11, no. 11) (over)

TT-64-12476

- I. Ziegler, K.
- II. Patent (Belgium) 546 432
- III. RIS-96644
- IV. Research Information
Service, New York

1280827

Office of Technical Services

Ziegler, Karl. PROCESS FOR REGULATING THE MOLECULAR WEIGHT OF SUBSTANTIALLY LINEAR HIGHLY CRYSTALLINE HEAD-TO-TAIL OLEFIN POLYMERS. Jan 64. Order from RIS \$27.00 Polyolefins Set \$750.00 Trans. of Belgian patent 549 636, by Montecatini, Milan, Jul 56. DESCRIPTORS: *Polyethylene plastics, *Alkynes, Polymerization, Metallurgical compounds, *Ziegler catalysts, *Aluminum compounds, Alkyl radicals. (Materials--Plastics, TT, v. 11, no. 11)	TT-64-12499 I. Ziegler, K. II. Patent (Belgium) 549 636 III. RIS-96733 IV. Research Information Service, New York 1280828 Office of Technical Services
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Ziegler, Karl.
PROCESS FOR PRODUCING HIGH-FUSING POLYMERS
OF BRANCHED CHAIN α -OLEFINS. Jan 64.
Order from RIS \$28.00 RIS-96751
Polyolefins Set \$750.00

Trans. of Belgian patent 549 891, by Montecatini,
Milan, Jul 56. (Abstract available)

DESCRIPTORS: *Polyethylene plastics, *Alkenes,
Polymerization, Metalorganic compounds, *Ziegler
catalysts,

New high-molecular weight, linear polymers of very
high mechanical strength and solvent resistance whose
melting points rise in inverse proportion to the length
of the fundamental monomer chain and in direct propor-
tion to the proximity of branching to the terminal double
bond are obtained from branched-chain α -olefins with
Ziegler catalysts. These polymers have considerably
(Materials--Plastics, TT, v. 11, no. 11) (over)

TT-64-12497

I. Ziegler, K.
II. Patent (Belgium) 549 891
III. RIS-96751
IV. Research Information
Service, New York

1280829

Office of Technical Services